Amendment After Final dated March 30, 2004

Reply to Office Action dated December 30, 2003

IN THE CLAIMS

Please amend the claims as follows:

1-4. (Canceled)

5. (Currently Amended) A cooling system for a main injector of a two-headed

combustion chamber of a turbomachine, said main injector comprising an annular piece

provided with a first injection orifice for discharging a primary fuel into said combustion

chamber, said primary injection orifice being fed upstream from a first feed tube and having

an endpiece surrounding said annular piece and provided with a second injection orifice for

discharging a secondary fuel into said combustion chamber, said second injection orifice

being fed upstream from a second feed tube,

wherein said endpiece includes an annular channel of depth that extends beyond said

first injection orifice, said annular channel having a tubular separation element therein to

define first and second coaxial annular spaces on either side of said element for cooling fluid

flow, cooling fluid passing between said two annular spaces via through orifices formed in

said separation element at a downstream end of said element resting on the bottom of the

channel, and

wherein said tubular separation element is fixed upstream to a third tube surrounding

said first and second feed tubes and co-operating firstly with said second feed tube to define a

first annular duct which brings the cooling fluid from a fluid source via said first annular

space to said endpiece, and secondly with an outer wall of the injector to define a second

annular duct which returns the cooling fluid to said fluid source via said second annular

space, and

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wherein said tubular separation element is brazed to said third tube which is connected upstream to the injector body.

- 6. (Original) A cooling system according to claim 5, wherein said first and second feed tubes and said third tube are coaxial.
 - 7. (Canceled)
- 8. (Original) A main injector for a two-headed combustion chamber of a turbomachine including a cooling system according to claim 5.